REPORT OF COCONUT STUDY MISSION IN ASIA AND THE PACIFIC

By ROMULO N. ARANCON, JR
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Asian and Pacific Coconut Community (APCC)
I. INTRODUCTION: TOR

- Conduct Meetings with Senior Officials, Coconut Farmers, Processors, Stakeholders, Researchers, Extensionists, and Regional Bodies (SPC, UCAP, etc.)
- Visit Coconut Farms, Coconut Processing Plants
- First hand Appraisal of the Status of the Coconut Sector
- Identify Gaps, Issues, Common Problems and Recommendations
Premium Cooking Oil

THE HEALTHY OIL
Coconut Oil, Beta Carotene, Vitamin E

☑ No cholesterol or transfat
☑ Vegan and gluten free
☑ High smoke point>230 deg C

Manufactured by Pacific Oil
Nu‘u, Samoa
KAKALA
POLYNESIAN BODY OILS

PROUDLY
MADE IN TONGA

Take home the exotic South Pacific Islands with a delightful range of fragrances from the Kingdom of Tonga.

Pure coconut body oil with natural essence.

‘Ofa atu from Kenani
COCONUT
90c
SURE WIN!
EA
Perfect Choice Coconut Cream
400ml
$2.15
Special
2L Oil
400 VY
II. REGIONAL GAPS, ISSUES AND COMMON PROBLEMS

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Regional Gaps, Issues and Common Problems</th>
<th>Reasons and Contributing Factors</th>
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<tbody>
<tr>
<td>A. Production</td>
<td>• Low Coconut Production and Low Farm Productivity</td>
<td>• Senile palms</td>
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<tr>
<td></td>
<td></td>
<td>• Poor farm management</td>
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<tr>
<td></td>
<td></td>
<td>• Lack of Coconut-Based Farming Systems Models</td>
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<td></td>
<td></td>
<td>• Lack of Quality planting Materials</td>
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<tr>
<td></td>
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<td>• Pest and diseases</td>
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<td></td>
<td></td>
<td>• High cost of inputs</td>
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<td></td>
<td></td>
<td>• Natural calamities: drought, typhoons, flooding due to climate change</td>
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<td></td>
<td></td>
<td>• Indiscriminate cutting of coconut trees</td>
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<td></td>
<td></td>
<td>• Conversion to more profitable crops like oil palms, rubber, etc. or other commercial use of land</td>
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<td>• Land Tenure Problems</td>
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### II. REGIONAL GAPS, ISSUES AND COMMON PROBLEMS

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<tr>
<td><strong>B. Processing</strong></td>
<td>• Lack of Capital and Financing</td>
<td>• Limited access to credit</td>
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<tr>
<td></td>
<td>• Limited knowledge and skills in appropriate coconut processing technologies</td>
<td>• Not bankable farmers (smallholders)</td>
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<td></td>
<td>• High cost of machineries</td>
<td>• Not organized as viable CBO’s/coops</td>
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<tr>
<td></td>
<td>• Lack of access to appropriate machineries</td>
<td>• Lack of knowledge on GMP, HACCP and Quality</td>
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<td></td>
<td>• Economic Viability and Sustainability of Small-scale Processing Ventures</td>
<td>• Too small in size (needs to be scaled up to be economically viable)</td>
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<td></td>
<td>• Logistics and Infrastructure</td>
<td>• Availability of electricity, transport facilities and cost of shipping</td>
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| C. Marketing | • Low prices/widely fluctuating farm gate prices  
• Poor marketing system  
• Low domestic utilization / Low domestic market demand  
• Lack of access to markets | • Competition from other vegetable oils, products  
• Multi-layered copra trading (chain of middlemen)  
• Smallholders not organized as marketing coop for bulk trading  
• Lack of knowledge on health benefits of coconut products  
• Lack of knowledge on environment-friendly products from coconut  
• Remoteness of farms, poor infrastructure, high transport / shipping costs  
• Lack of market information  
• Limited market promotion |
II. REGIONAL GAPS, ISSUES AND COMMON PROBLEMS

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<tr>
<td>C.Others</td>
<td>• Policies and Government Support</td>
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<tr>
<td></td>
<td>• Focused and Aggressive Coconut Development Programs</td>
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<td>• Economic Incentives</td>
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<td>• Infrastructure Development</td>
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<td></td>
<td>• Development of Economically Viable Coconut Farmers Coops/CBO’s</td>
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Value – Chain Analysis

• Identify and focus on products with added value
• Product development/innovation
• Marketing and branding
Supply Chain Analysis

• Focus on cost reduction or optimization
• Efficiency in production
• Supply management
## COMPARATIVE EXPORT PERFORMANCE OF HIGH VALUE COCONUT PRODUCTS (PHILIPPINES)

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<tbody>
<tr>
<td></td>
<td>Volume MT</td>
<td>Unit Price US$/MT</td>
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<tr>
<td>Desiccated Coconut (DC)</td>
<td>118,963</td>
<td>1,292.48</td>
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<tr>
<td>Activated Carbon (AC)</td>
<td>28,764</td>
<td>1,173.30</td>
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<tr>
<td>Liquid Coconut Milk (LCM)</td>
<td>1,902</td>
<td>1,413.05</td>
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<tr>
<td>Coconut Milk Powder (CMP)</td>
<td>1,563</td>
<td>2,868.28</td>
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<tr>
<td>Virgin Coconut Oil (VCO)</td>
<td>1,422</td>
<td>3,490.89</td>
</tr>
<tr>
<td>Coconut Flour (CF)</td>
<td>790</td>
<td>1,059.28</td>
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What High – Value Coconut Products Should Investor Focus On?

• Market-driven
• Sustainable demand
What is the best agri-business model for the coconut sector

- Big private business
- PPP
- Joint venture
- Nucleus farming, processing and marketing
- Consolidators/aggregators
- CBO’s/Coconut farmers cooperatives
III. RECOMMENDATIONS

1. There is a need to rehabilitate senile and unproductive palms in coconut growing countries in Asia.

   • This will require coconut replanting using selected elite local varieties and hybrids. Germplasm exchange and capacity building within the countries to develop capability on mass selection techniques, coconut breeding and hybridization should be pursued.
III. RECOMMENDATIONS

• Since coconuts can tolerate salinity and are highly adapted to the coastal zones, priority in replanting may be considered in these areas. This should contribute to the total carbon sink and prevent coastal erosion and massive sea water intrusion due to climate change.
III. RECOMMENDATIONS

• Breeding for drought tolerant varieties, high lauric oil content, precocity or earliness of bearing, and high nut production should also be pursued.
2. The lack of quality coconut planting materials must be addressed.

- This will require more seedgardens to produce high yielding and early bearing coconut hybrids.
- The private sector may also be encouraged to establish commercial seedgardens to meet the required quantities of good quality planting materials for the replanting program.
III. RECOMMENDATIONS

• Research on using somatic embryogenesis to mass propagate selected high yielding hybrids should also be vigorously pursued.

• The genetic based of coconut varieties should therefore be expanded and characterized for breeding and development of hybrids for specific purposes or uses.
III. RECOMMENDATIONS

• One immediate and practical option is the use of selected local elite varieties. Thus, capabilities on mass selection techniques must be developed among extensionists and the coconut farmers to enable them to choose the best quality planting materials from the existing local varieties.
III. RECOMMENDATIONS

• An accreditation system of coconut farms with good local elite varieties should also be put in place.
III. RECOMMENDATIONS

• Another option is to develop the capabilities of the farmers to produce coconut hybrids in their own farms, as practiced in Sri Lanka and the Philippines.
III. RECOMMENDATIONS

• This usually involves crossing a yellow or red dwarf variety with a selected local tall variety using the dwarf variety as the female progenitor, and selection of authentic hybrid seedlings is based mainly on the pigmentation (color) of the germinating hybrid seednuts.
III. RECOMMENDATIONS

• The mass production of hybrids by coconut farmers in their own farms should contribute to the number of improved quality materials for the coconut replanting program.
III. RECOMMENDATIONS

3. Commercial Coconut Wood Utilization should be promoted.

- To provide an economic incentive for replanting or cutting of senile and unproductive coconut palms, there must be a buyer of coconut logs. Commercial coconut wood utilization should therefore be encouraged and investment in this area must be promoted to provide lumber/coconut wood for housing and furniture making.
• This should also provide for a diversification strategy away from forest timber and avoid degradation of the forest and depletion of the forest resources in the Asian region.
III. RECOMMENDATIONS

• A pilot project on coconut timber utilization in collaboration with appropriate stakeholders in coconut growing countries may be explored.
III. RECOMMENDATIONS

- Mobile sawmills equipped with tungsten carbide saws may be piloted with the appropriate techniques and technologies in coconut logging, saw milling (correct cutting patterns), drying and machining.
III. RECOMMENDATIONS

• A technical assistance project on this regard is desirable.
III. RECOMMENDATIONS

4. There is a need to develop strategies against emerging coconut pests and diseases.

- As pests and diseases cause low yields, research on environment friendly biocontrol strategies using natural predators, pheromones and biopesticides must be pursued.
• Farm sanitation, group efforts through Farmer Field Schools must be widely promoted and practiced. Research on breeding for tolerant varieties especially against emerging/new coconut diseases must be pursued.
III. RECOMMENDATIONS

5. Coconut-Based Farming Systems models should be further developed, promoted and practiced.

• To ensure food security, good nutrition and additional income in coconut communities, coconut-based farming system models involving intercropping of food crops, vegetables, fruit trees and industrial crops like coffee and cacao in between the coconut palms, as well as raising livestock like goats, cattle, chicken, etc. in the coconut farms must be vigorously promoted and practiced.
III. RECOMMENDATIONS

• Produce from intercrops and cash crops together with income from livestock should ensure food security and a sustainable source of livelihood.
Technical assistance and guidance must be provided to enable the coconut farmers to adopt good agricultural practices (GAP) in coconut farming.
III. RECOMMENDATIONS

6. Value-added coconut processing must be promoted.

- To be resilient in times of price volatilities, coconut farmers must not depend on copra alone. Value-added processing of various coconut products can also add income to the farming family. Coconut value-added products like virgin coconut oil, VCO-based soap and cosmetic products, coconut sugar, coconut vinegar, nata de coco, young tender coconuts, coconut shell charcoal and activated carbon, coir and coir-based products are some of the products that could add income to the coconut farmers.
III. RECOMMENDATIONS

• Technical assistance on coconut processing technologies, good manufacturing practices (GMP), promotion of quality standards and access to markets should therefore be provided to ensure viability and sustainability of value added processing ventures in coconut communities.
III. RECOMMENDATIONS

• The challenge is to focus on high value coconut products and by-products with health and environment-friendly applications.
III. RECOMMENDATIONS

- There is much potential to further develop the coconut husk industry (processing of coconut coir and coir-based products) especially in the Philippines and Indonesia, where so much raw material exists. The value added processing of coconut shell charcoal into activated carbon (AC) has so much potential as global demand for AC is increasing annually.
III. RECOMMENDATIONS

7. Promote joint ventures among coconut growing countries.

- To take advantage of the synergistic effects of sharing technologies (technical know-how and experience), raw materials, and access to niche markets, joint ventures within and among coconut growing countries should be encouraged.
III. RECOMMENDATIONS

• The government in collaboration with the private stakeholders can play a facilitating role in this regard.
III. RECOMMENDATIONS

8. Promote the health attributes of coconut products through an aggressive awareness campaign and through joint R & D efforts in the conduct of clinical trials.

- Studies on coconut oil, and its main component which are known as medium chain fatty acids, have shown that it is beneficial as a dietary oil, as a food supplement or functional food and as a therapeutic agent. Because it can speed up the metabolism, it can readily provide energy and can even be beneficial for weight loss.
III. RECOMMENDATIONS

• Coconut oil has shown to enhance the immune system and has anti-microbial properties. Researchers assert that there is scientific basis for the many testimonial evidences on the health attributes of coconut oil. However, many of these require further research using adequate population sample size through the conduct of clinical trials/studies.
III. RECOMMENDATIONS

• Greater awareness of the beneficial qualities of coconut products should increase domestic and export demand.
III. RECOMMENDATIONS


- Coconut products can be certified as organic, GMO-free, natural, healthy and environment-friendly. To improve market access of coconut products, the conduct of market promotional campaigns in the buying countries and niche markets through participation in high-impact trade exhibitions, technical seminars on the health and nutritional aspects of coconut products must be intensified.
III. RECOMMENDATIONS

• These efforts should contribute to the growth of the demand for coconut products.
10. Strengthen the National Coconut Extension Service.

- To ensure efficiency and effectiveness in program implementation, the Governments in the Asian countries should strengthen the National Coconut Extension Service.
III. RECOMMENDATIONS

- The extension delivery services to coconut farmers and women folks in the coconut farming communities must be vigorously pursued.
III. RECOMMENDATIONS

• Capacity building and training programs for coconut subject matter specialists/extensionists, coconut farmers and coconut processors must be provided with technical assistance from international development or donor agencies.
III. RECOMMENDATIONS

- This should include technologies in coconut replanting, varietal screening, coconut breeding, seedling selection, coconut-based cropping systems, good agricultural practices and others. In the processing sector, technologies on Good Manufacturing Practices (GMP), HACCP and ISO Certification, Organic Certification, and product quality standards must be provided.
III. RECOMMENDATIONS

11. Facilitate and Support the Formation of Economically Viable CBO’s / Coconut Farmers’ Coops.

• The formation of coconut producers associations or cooperatives in the Asian countries must also be facilitated/supported.
III. RECOMMENDATIONS

- This should ensure inclusive development among the rural coconut farming communities and at the same time promote greater efficiency and effectiveness in the delivery of extension services, financing and capacity building activities. The establishment of nucleus estates or the adoption of the cluster approach to coconut farming and marketing may also be pursued.
III. RECOMMENDATIONS

12. Coconut should be a Priority Crop in the National Agricultural Development Agenda.

• To encourage investments in the coconut sector, the government, as a matter of policy, must consider coconut as a priority crop in its national agricultural development agenda.
The government and private financial sector through the banking system should provide support through reasonable credit schemes for coconut processing business ventures.
III. RECOMMENDATIONS

• These investments must be market-led or demand-driven, and the support for financing must be include professional guidance on branding, packaging and market-matching assistance.
III. RECOMMENDATIONS

13. All Coconut growing countries must formulate their own 10 or 20 Year Coconut Industry Strategic Plan and Roadmap
14. To ensure evidence-based policy formulation and program planning, data on the coconut sector and industry must be updated regularly.

• This will require new agricultural surveys and market studies.
Thank You...